\_\_\_\_\_\_

Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)

217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: Wed Oct 17 12:50:35 EDT 2007

\_\_\_\_\_\_

## Validated By CRFValidator v 1.0.3

Application No: 10595559 Version No: 1.0

Input Set:

Output Set:

**Started:** 2007-10-01 13:20:46.903 **Finished:** 2007-10-01 13:20:48.664

**Elapsed:** 0 hr(s) 0 min(s) 1 sec(s) 761 ms

Total Warnings: 16
Total Errors: 1
SeqIDs Defined: 51

No. of SeqIDs Defined: 51
Actual SeqID Count: 51

Error code		Error Description
W	402	Undefined organism found in <213> in SEQ ID (16)
E	257	Invalid sequence data feature in <221> in SEQ ID (36)
W	213	Artificial or Unknown found in <213> in SEQ ID (37)
W	213	Artificial or Unknown found in <213> in SEQ ID (38)
W	213	Artificial or Unknown found in <213> in SEQ ID (39)
W	213	Artificial or Unknown found in <213> in SEQ ID (40)
W	213	Artificial or Unknown found in <213> in SEQ ID (41)
W	213	Artificial or Unknown found in <213> in SEQ ID (42)
W	213	Artificial or Unknown found in <213> in SEQ ID (43)
W	213	Artificial or Unknown found in <213> in SEQ ID (44)
W	213	Artificial or Unknown found in <213> in SEQ ID (45)
W	213	Artificial or Unknown found in <213> in SEQ ID (46)
W	213	Artificial or Unknown found in <213> in SEQ ID (47)
W	213	Artificial or Unknown found in <213> in SEQ ID (48)
W	213	Artificial or Unknown found in <213> in SEQ ID (49)
W	213	Artificial or Unknown found in <213> in SEQ ID (50)
W	213	Artificial or Unknown found in <213> in SEQ ID (51)

## SEQUENCE LISTING

<110> GUTHRIDGE, MARK RAMSHAW, HAYLEY STOMSKI, FRANK LOPEZ, ANGEL

<120> A BINDING MOTIF AND METHODS OF REGULATING CELL FUNCTION

<130> 03391/0204241-US0

<140> 10595559

<141> 2007-10-01

<150> PCT/AU04/01480

<151> 2004-10-27

<150> AU 2003-905932

<151> 2003-10-27

<160> 51

<170> PatentIn Ver. 3.3

<210> 1

<211> 897

<212> PRT

<213> Homo sapiens

<400> 1

Met Val Leu Ala Gln Gly Leu Leu Ser Met Ala Leu Leu Ala Leu Cys  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Trp Glu Arg Ser Leu Ala Gly Ala Glu Glu Thr Ile Pro Leu Gln Thr 20 25 30

Leu Arg Cys Tyr Asn Asp Tyr Thr Ser His Ile Thr Cys Arg Trp Ala 35 40 45

Asp Thr Gln Asp Ala Gln Arg Leu Val Asn Val Thr Leu Ile Arg Arg  $50 \ \ 55 \ \ \ 60$ 

Val Asn Glu Asp Leu Leu Glu Pro Val Ser Cys Asp Leu Ser Asp Asp 65 70 75 80

Met Pro Trp Ser Ala Cys Pro His Pro Arg Cys Val Pro Arg Arg Cys
85 90 95

Val Ile Pro Cys Gln Ser Phe Val Val Thr Asp Val Asp Tyr Phe Ser 100 105 110

Phe Gln Pro Asp Arg Pro Leu Gly Thr Arg Leu Thr Val Thr Leu Thr 115 120 125

Gln His Val Gln Pro Pro Glu Pro Arg Asp Leu Gln Ile Ser Thr Asp

130 135 140

Gln Asp His Phe Leu Leu Thr Trp Ser Val Ala Leu Gly Ser Pro Gln Ser His Trp Leu Ser Pro Gly Asp Leu Glu Phe Glu Val Val Tyr Lys Arg Leu Gln Asp Ser Trp Glu Asp Ala Ile Leu Leu Ser Asn Thr Ser Gln Ala Thr Leu Gly Pro Glu His Leu Met Pro Ser Ser Thr Tyr Val Ala Arg Val Arg Thr Arg Leu Ala Pro Gly Ser Arg Leu Ser Gly Arg Pro Ser Lys Trp Ser Pro Glu Val Cys Trp Asp Ser Gln Pro Gly Asp Glu Ala Gln Pro Gln Asn Leu Glu Cys Phe Phe Asp Gly Ala Ala Val Leu Ser Cys Ser Trp Glu Val Arg Lys Glu Val Ala Ser Ser Val Ser Phe Gly Leu Phe Tyr Lys Pro Ser Pro Asp Ala Gly Glu Glu Glu Cys Ser Pro Val Leu Arg Glu Gly Leu Gly Ser Leu His Thr Arg His His Cys Gln Ile Pro Val Pro Asp Pro Ala Thr His Gly Gln Tyr Ile Val Ser Val Gln Pro Arg Ala Glu Lys His Ile Lys Ser Ser Val Asn Ile Gln Met Ala Pro Pro Ser Leu Asn Val Thr Lys Asp Gly Asp Ser Tyr Ser Leu Arg Trp Glu Thr Met Lys Met Arg Tyr Glu His Ile Asp His Thr Phe Glu Ile Gln Tyr Arg Lys Asp Thr Ala Thr Trp Lys Asp Ser Lys Thr Glu Thr Leu Gln Asn Ala His Ser Met Ala Leu Pro Ala Leu Glu Pro Ser Thr Arg Tyr Trp Ala Arg Val Arg Val Arg Thr Ser Arg Thr Gly Tyr Asn Gly Ile Trp Ser Glu Trp Ser Glu Ala Arg 

Ser Trp Asp Thr Glu Ser Val Leu Pro Met Trp Val Leu Ala Leu Ile

435 440 445

Val Ile Phe Leu Thr Ile Ala Val Leu Leu Ala Leu Arg Phe Cys Gly Ile Tyr Gly Tyr Arg Leu Arg Arg Lys Trp Glu Glu Lys Ile Pro Asn Pro Ser Lys Ser His Leu Phe Gln Asn Gly Ser Ala Glu Leu Trp Pro Pro Gly Ser Met Ser Ala Phe Thr Ser Gly Ser Pro Pro His Gln Gly Pro Trp Gly Ser Arg Phe Pro Glu Leu Glu Gly Val Phe Pro Val Gly Phe Gly Asp Ser Glu Val Ser Pro Leu Thr Ile Glu Asp Pro Lys His Val Cys Asp Pro Pro Ser Gly Pro Asp Thr Thr Pro Ala Ala Ser Asp Leu Pro Thr Glu Gln Pro Pro Ser Pro Gln Pro Gly Pro Pro Ala Ala Ser His Thr Pro Glu Lys Gln Ala Ser Ser Phe Asp Phe Asn Gly Pro Tyr Leu Gly Pro Pro His Ser Arg Ser Leu Pro Asp Ile Leu Gly Gln Pro Glu Pro Pro Gln Glu Gly Ser Gln Lys Ser Pro Pro Gly Ser Leu Glu Tyr Leu Cys Leu Pro Ala Gly Gly Gln Val Gln Leu Val Pro Leu Ala Gln Ala Met Gly Pro Gly Gln Ala Val Glu Val Glu Arg Arg Pro Ser Gln Gly Ala Ala Gly Ser Pro Ser Leu Glu Ser Gly Gly Gly Pro Ala Pro Pro Ala Leu Gly Pro Arg Val Gly Gly Gln Asp Gln 680 685 Lys Asp Ser Pro Val Ala Ile Pro Met Ser Ser Gly Asp Thr Glu Asp Pro Gly Val Ala Ser Gly Tyr Val Ser Ser Ala Asp Leu Val Phe Thr Pro Asn Ser Gly Ala Ser Ser Val Ser Leu Val Pro Ser Leu Gly Leu 

Pro Ser Asp Gln Thr Pro Ser Leu Cys Pro Gly Leu Ala Ser Gly Pro

740 745 750

Pro Gly Ala Pro Gly Pro Val Lys Ser Gly Phe Glu Gly Tyr Val Glu
755 760 765

Leu Pro Pro Ile Glu Gly Arg Ser Pro Arg Ser Pro Arg Asn Asn Pro
770 780

Val Pro Pro Glu Ala Lys Ser Pro Val Leu Asn Pro Gly Glu Arg Pro 785 790 795 800

Ala Asp Val Ser Pro Thr Ser Pro Gln Pro Glu Gly Leu Leu Val Leu 805 810 815

Gln Gln Val Gly Asp Tyr Cys Phe Leu Pro Gly Leu Gly Pro Gly Pro 820 825 830

Leu Ser Leu Arg Ser Lys Pro Ser Ser Pro Gly Pro Gly Pro Glu Ile 835 840 845

Lys Asn Leu Asp Gln Ala Phe Gln Val Lys Lys Pro Pro Gly Gln Ala 850 855 860

Val Pro Gln Val Pro Val Ile Gln Leu Phe Lys Ala Leu Lys Gln Gln 865 870 875 888

Asp Tyr Leu Ser Leu Pro Pro Trp Glu Val Asn Lys Pro Gly Glu Val 885 890 895

Cys

<210> 2

<211> 14

<212> PRT

<213> Homo sapiens

<400> 2

Asn Gly Pro Tyr Leu Gly Pro Pro His Ser Arg Ser Leu Pro
1 5 10

<210> 3

<211> 13

<212> PRT

<213> Homo sapiens

<400> 3

Asn Val His Tyr Arg Thr Pro Lys Thr His Thr Met Pro

1 10

<210> 4

<211> 15

<212> PRT

<213> Homo sapiens

```
<400> 4
Arg Tyr Phe Thr Gln Lys Glu Glu Thr Glu Ser Gly Ser Gly Pro
<210> 5
<211> 22
<212> PRT
<213> Homo sapiens
<400> 5
Asn Lys Lys Tyr Glu Leu Gln Asp Arg Asp Val Cys Glu Pro Arg Tyr
                                    10
Arg Ser Val Ser Glu Pro
             20
<210> 6
<211> 13
<212> PRT
<213> Homo sapiens
<400> 6
Asn Pro Thr Tyr Ser Val Met Arg Ser His Ser Tyr Pro
                 5
                                     10
<210> 7
<211> 24
<212> PRT
<213> Homo sapiens
<400> 7
Asn Ile Phe Tyr Leu Ile Arg Lys Ser Gly Ser Phe Pro Met Pro Glu
                                     10
                                                         15
Leu Lys Leu Ser Ile Ser Phe Pro
            20
<210> 8
<211> 19
<212> PRT
<213> Homo sapiens
<400> 8
Asn Glu Glu Tyr Leu Asp Leu Ser Gln Pro Leu Glu Gln Tyr Ser Pro
                                     10
Ser Tyr Pro
```

<210> 9 <211> 19

```
<212> PRT
<213> Homo sapiens
Asn Gln Glu Tyr Leu Asp Leu Ser Met Pro Leu Asp Gln Tyr Ser Pro
                                 10
Ser Phe Pro
<210> 10
<211> 16
<212> PRT
<213> Homo sapiens
<400> 10
Asn Ala Thr Tyr Lys Val Asp Val Ile Gln Arg Thr Arg Ser Lys Pro
                                 10
<210> 11
<211> 11
<212> PRT
<213> Homo sapiens
<400> 11
Asn Pro Glu Tyr His Ser Ala Ser Ser Gly Pro
    5
<210> 12
<211> 10
<212> PRT
<213> Homo sapiens
<400> 12
Asn Pro Asp Tyr Trp Asn His Ser Leu Pro
   5
<210> 13
<211> 23
<212> PRT
<213> Homo sapiens
<400> 13
Asn Pro Ser Tyr Ser Ser Asn Pro Phe Val Asn Tyr Asn Lys Thr Ser
                      10
Ile Cys Ser Lys Ser Asn Pro
            20
<210> 14
```

<211> 11 <212> PRT

```
<213> Homo sapiens
<400> 14
Asn Thr Leu Tyr Phe Asn Ser Gln Ser Ser Pro
    5
<210> 15
<211> 24
<212> PRT
<213> Homo sapiens
<400> 15
Asn Pro Val Tyr Gln Lys Thr Thr Glu Asp Glu Val His Ile Cys His
                          10
Asn Gln Asp Gly Tyr Ser Tyr Pro
           20
<210> 16
<211> 24
<212> PRT
<213> Rattus sp.
<400> 16
Asn Pro Val Tyr Leu Lys Thr Thr Glu Glu Asp Leu Ser Ile Asp Ile
                      10
                                                    15
Gly Arg His Ser Ala Ser Val Gly
           20
<210> 17
<211> 38
<212> PRT
<213> Homo sapiens
Asn Pro Thr Tyr Lys Met Tyr Glu Gly Glu Pro Asp Asp Val Gly
    5
Gly Leu Leu Asp Ala Asp Phe Ala Leu Asp Pro Asp Lys Pro Thr Asn
            20
                             25
Phe Thr Asn Pro Val Tyr
        35
<210> 18
<211> 12
<212> PRT
<213> Homo sapiens
<400> 18
Asn Pro Ile Tyr Lys Ser Ala Val Thr Thr Val Val
```

10

5

```
<210> 19
<211> 12
<212> PRT
<213> Homo sapiens
<400> 19
Asn Pro Leu Tyr Lys Ser Ala Ile Thr Thr Val
    5
<210> 20
<211> 12
<212> PRT
<213> Homo sapiens
<400> 20
Asn Pro Leu Tyr Lys Glu Ala Thr Ser Thr Phe Thr
<210> 21
<211> 12
<212> PRT
<213> Homo sapiens
<400> 21
Asn Pro Leu Tyr Arg Lys Pro Ile Ser Thr His Thr
<210> 22
<211> 12
<212> PRT
<213> Homo sapiens
<400> 22
Asn Pro Leu Tyr Arg Gly Ser Thr Ser Thr Phe Lys
<210> 23
<211> 12
<212> PRT
<213> Homo sapiens
<400> 23
Pro Gly His Tyr Leu Arg Cys Asp Ser Thr Gln Pro
                                    10
<210> 24
<211> 17
<212> PRT
```

<213> Homo sapiens

```
<400> 24
Val Gln Thr Tyr Val Leu Gln Gly Asp Pro Arg Ala Val Ser Thr Gln
Pro
<210> 25
<211> 14
<212> PRT
<213> Homo sapiens
<400> 25
Gln Val Leu Tyr Gly Gln Leu Leu Gly Ser Pro Thr Ser Pro
     5
<210> 26
<211> 22
<212> PRT
<213> Homo sapiens
<400> 26
His Ser Gly Tyr Arg His Gln Val Pro Ser Val Gln Val Phe Ser Arg
         5
                         10
                                                    15
Ser Glu Ser Thr Gln Pro
           20
<210> 27
<211> 17
<212> PRT
<213> Homo sapiens
<400> 27
Trp Lys Met Tyr Glu Val Tyr Asp Ala Lys Ser Lys Ser Val Ser Leu
1
               5
                           10
                                                    15
Pro
<210> 28
<211> 16
<212> PRT
<213> Homo sapiens
<400> 28
Lys Ile Pro Tyr Phe His Ala Gly Gly Ser Lys Cys Ser Thr Trp Pro
                5
                                 10
                                                     15
<210> 29
```

<211> 19 <212> PRT

```
<213> Homo sapiens
<400> 29
Glu Leu Asp Tyr Cys Leu Lys Gly Leu Lys Leu Pro Ser Arg Thr Trp
    5
                      10
Ser Pro Pro
<210> 30
<211> 15
<212> PRT
<213> Homo sapiens
<400> 30
Ser Gly Asp Tyr Met Pro Met Ser Pro Lys Ser Val Ser Ala Pro
1 5
                     10
<210> 31
<211> 38
<212> PRT
<213> Homo sapiens
<400> 31
Ser Phe Tyr Tyr Ser Glu Glu Asn Lys Leu Pro Glu Pro Glu Glu Leu
                      10
       5
Asp Leu Glu Pro Glu Asn Met Glu Ser Val Pro Leu Asp Pro Ser Ala
          20
                         25
Ser Ser Ser Leu Pro
      35
<210> 32
<211> 22
<212> PRT
<213> Homo sapiens
<400> 32
Glu Glu Ile Tyr Ile Ile Met Gln Ser Cys Trp Ala Phe Asp Ser Arg
1
                                10
                                                  15
                5
Lys Arg Pro Ser Phe Pro
           20
<210> 33
<211> 14
<212> PRT
<213> Homo sapiens
<400> 33
Ile Ser Gln Tyr Leu Gln Asn Ser Lys Arg Lys Ser Arg Pro
```

10

5

```
<210> 34
<211> 11
<212> PRT
<213> Homo sapiens
<400> 34
Gly Thr Ala Tyr Gly Leu Ser Arg Ser Gln Pro
    5
<210> 35
<211> 15
<212> PRT
<213> Homo sapiens
<400> 35
Tyr Leu Pro Gln Glu Asp Trp Ala Pro Thr Ser Leu Thr Arg Pro
                                   10
<210> 36
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> MOD_RES
<222> (38)
<223> p-Ser
<400> 36
Leu Val Ala Tyr Ile Ala Phe Lys Arg Trp Asn Ser Cys Lys Gln Asn
Lys Gln Gly Ala Asn Ser Arg Pro Val Asn Gln Thr Pro Pro Pro Glu
            20
                              25
Gly Glu Lys Leu His Ser Asp Ser Gly Ile Ser
       35
               40
<210> 37
<211> 4
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic peptide
<400> 37
Asn Gly Pro Tyr
```

```
<211> 4
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic peptide
<400> 38
Asn Val His Tyr
<210> 39
<211> 4
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic peptide
<400> 39
Asn Lys Lys Tyr
<210> 40
<211> 4
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic peptide
<400> 40
Asn Pro Thr Tyr
<210> 41
<211> 4
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic peptide
<400> 41
Asn Ile Phe Tyr
<210> 42
<211> 4
<212> PRT
<213> Artificial Sequence
<220>
```

```
<223> Description of Artificial Sequence: Synthetic peptide

<400> 42
Asn Glu Glu Tyr
1

<210> 43
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 43
Asn Gln Glu T
```